

**NEPALOCORIS, A NEW GENUS OF STENODEMINI
(HETEROPTERA: MIRIDAE: MIRINAE)**

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Abstract.—*Nepalocoris elysae*, a NEW GENUS and NEW SPECIES of stenodemine Miridae, is described on the basis of adult males from near Helumbu District, Nepal. Dorsal habitus photographs and illustrations of the male genitalia are provided.

Key Words.—Insecta, Heteroptera, Miridae, Stenodemini, phylogenetics

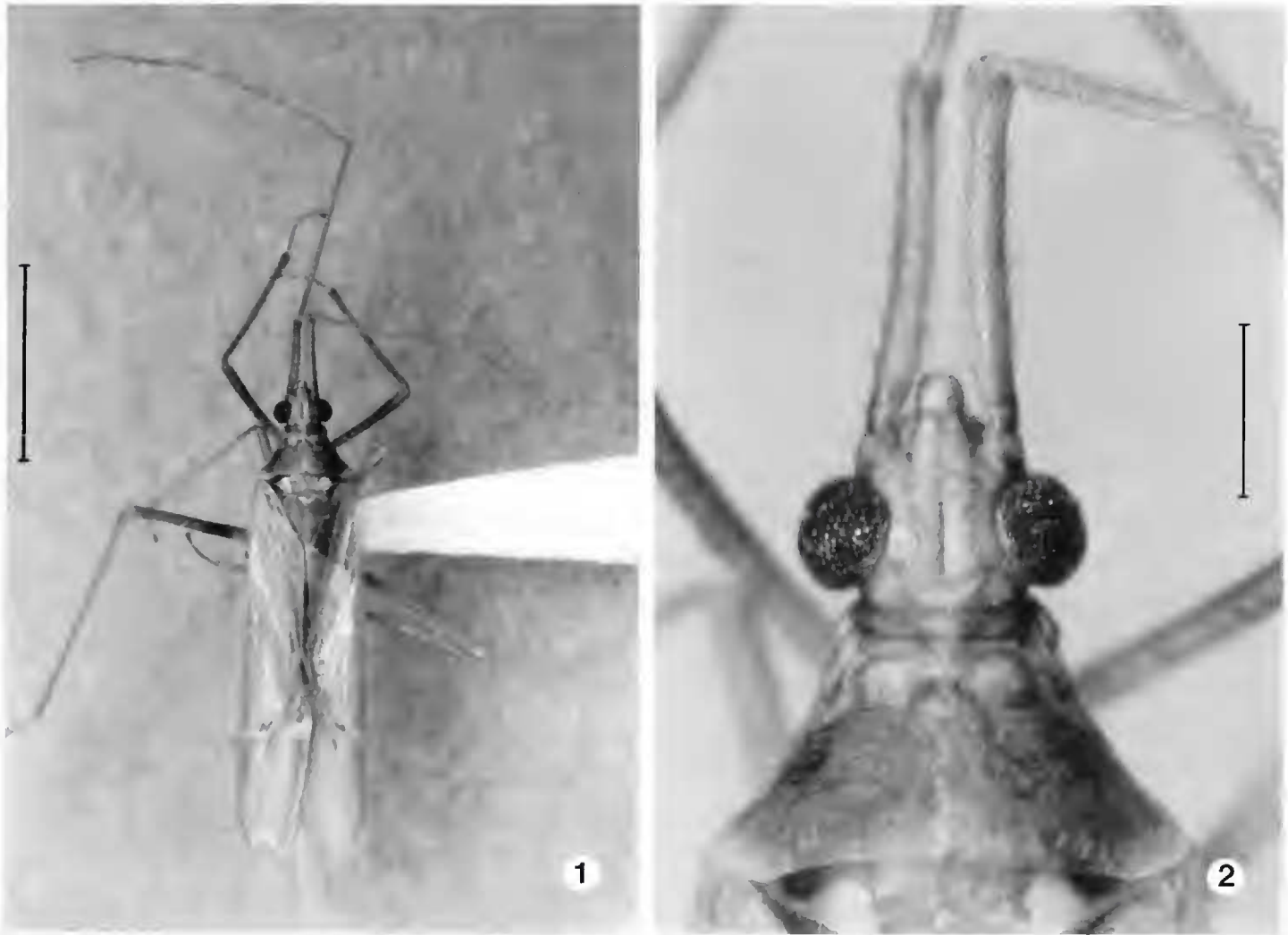
This paper describes a new genus and new species of Stenodemini discovered while curating mirine plant bugs in the Canadian National Collection of Insects housed in the Biosystematics Research Centre, Agriculture Canada, Ottawa, Ontario. The descriptions are a necessary prerequisite to a phylogenetic revision of the tribe for the world. All the specimens discussed here were collected on the Canadian Nepal Expedition, which took place from March to September, 1967. The participating research scientists of the former Entomology Research Institute, Canada Department of Agriculture, J. G. T. Chilcott, W. R. M. Mason, and D. D. Munroe, were accompanied by the Nepalese entomologist K. Sharma.

NEPALOCORIS SCHWARTZ, NEW GENUS

Type Species.—*Nepalocoris elysae* NEW SPECIES, Monobasic.

Description.—*Adult male. Dorsal aspect:* (Fig. 1). Large; head, calli shagreened; pronotum rugulopunctate, sometimes with minute punctures; mesoscutum, scutellum, and hemelytra smooth. *Vestiture:* With sparsely distributed, short, suberect, pale, simple setae; setae longer on tylus. Antenna with densely distributed, medium length, suberect, simple setae; setae longest on segment I and base of segment II, their length greater than one-half width of segments; I without bristlelike setae. Legs with densely distributed, suberect, longer, simple setae, setal length equal to metatibial width; interior surface of distal half of metatibia with minute, stout, black spiculae, tibia without bristlelike setae. *Head:* (Fig. 2). Triangular in dorsal view; subquadrate in lateral view; eye large, anterior margin emarginate near and contiguous with antennal fossa; posterior margin slightly separated from pronotum; vertex slightly elevated; frons with deep longitudinal sulcus; anterior margin of frons elevated dorsad but not anteriorly of base of tylus; tylus protuberant, rounded dorsally; anterior margin of frons even with juga and lora, slightly protruding anteriorly of antennal fossa; labium reaching middle of mesocoxa, segment I reaching base of head. *Antennae:* Long, length slightly greater than body length; segment I longer than length of head, II long, thinner than I, III longer than IV, III and IV filamentous. *Pronotum:* (Fig. 2). Subtriangular with distinct anterior and dorsal lobes, disk convex; proepisternum visible in dorsal view; calli weakly differentiated, confluent anteriomedially, not reaching lateral margin of pronotum; lateral margin broadly curved, carinate dorsad of coxal cleft, with additional carinate surface ventrad of lateral margin and adjacent to coxal cleft; collar flattened, with distinct posterior sulcus and transverse carina posteriorly; coxal incisure deep, reaching under lateral carina. *Mesoscutum and scutellum:* Confluent medially; mesoscutum broadly exposed; scutellum flattened. *Hemelytra:* Macropterous, elongate, lateral margins straight; embolium thin; length of cuneus slightly less than one-half length of hemelytra to cuneal fracture. *Legs:* Rounded, narrow throughout, metatibia longer than metafemur and abdomen; metatarsus with segment I equal to combined length of segments II and III. *Claws:* Long, narrow, curved distally; pulvillus narrow, adhering to entire interior angle of

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Figures 1, 2. *Nepalocoris elysae*, adult male, holotype. Figure 1. Dorsal habitus, scale = 3 mm. Figure 2. Dorsal view of head and pronotum, scale = 0.5 mm.

claw. *Genitalia*: Genital capsule: With slight tubercles dorsad of paramere insertions, left tubercle larger than right; posteroventral portion of capsule not produced. Left paramere: Small, curved; sensory lobe produced above arm; arm just longer than shaft; apex recurved, pointed; surface smooth (Figs. 3c, 3d). Right paramere: Linear, slightly expanded medially; tapering distally to narrowed hooked apex (Fig. 3e). Vesica: Secondary gonopore: Aperture complete, circular (Fig. 3a). Membrane: With spinose lobes; without sclerotized processes (Figs. 3a, 3b).

Adult female. — Unknown.

Diagnosis. — The antennal structure of adult males is similar to that in *Acomocera* Eyles, *Ebutius* Distant and *Lasiomiris* Reuter; all have segment III thinner and longer than segment II. *Nepalocoris* is distinguished from these and other Asian stenodemine genera (*Dolichomiris* Reuter, *Notostris* Fieber, *Stenodema* Laporte and *Trigonotylus* Fieber) by its combination of: dull, rugulose hemelytra with sparse, short vestiture; an antennal segment I with setae shorter than the width of the segment; a frons elevated dorsad of the tylus base, but not protruding anteriorly of it; a pronotum with a nearly complete posterior sulcus and a posterior lobe with a strongly convex disk; and a complete and rounded aperture of the secondary gonopore. Superficially, adult males of *Nepalocoris* are similar to those of the North American *Chaetofoveolocatoris* Knight but differ by the shorter dorsal vestiture, the structure of the collar, and male genitalia.

Etymology. — From the Hindi, “Naipali,” for the Nepalese origin of the type species, and from the Latin “coris,” meaning bug.

Remarks. — Male *Nepalocoris* will key to couplet 24 in the key to stenodemine genera by Eyles & Carvalho (1975). At this couplet the new genus differs from

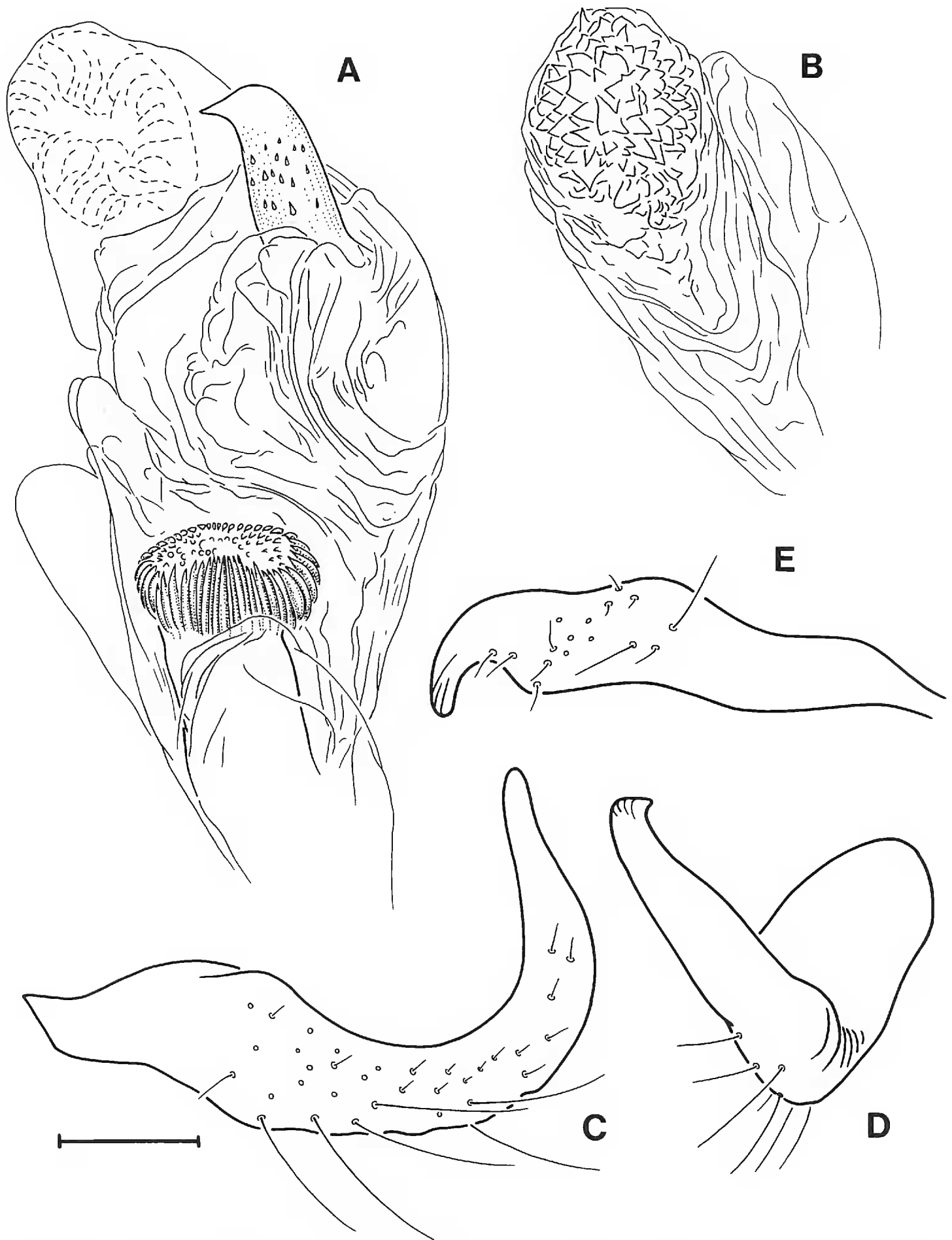


Figure 3. *Nepalocoris elysae*, male genitalic structures, scale = 0.1 mm. A, B. Vesica. A. Anterior view. B. Posterior view of uninflated distal portion of membrane. C, D. Left paramere. C. Lateral view. D. Distal view. E. Right paramere, lateral view.

Acomocera and *Schoutedenomiris* Carvalho, which both possess an indistinct anterior frons margin and a strongly pointed tylus, by the slightly rounded frons which projects above the base of a broadly rounded tylus. The strongly convex pronotal disk, nearly complete sulcus with an adjacent rounded carina posteriad

of the collar, and short anteocular portion of the head distinguish males of *Nepalocoris* from those of all other Stenodemini.

A preliminary cladistic analysis of stenodemine genera (28 genera treated in Schwartz (1987) plus *Nepalocoris*) based on 49 morphological characters indicates that *Acomocera*, *Ebutius*, *Lasiomiris*, all with distributions in the Indo-West Pacific (southern China, India, Sri Lanka, Indochina, Indonesia, New Britain, New Guinea, and Philippines), and *Nepalocoris* may form a monophyletic group founded on antennal structure. All these genera have the third antennal segment much narrower and longer than the second segment, whereas all other Stenodemini have the third segment slightly narrower and shorter than the second. However, the relationships of each of the four apparent monophyletic genera to one another remains unresolved.

NEPALOCORIS ELYSAE SCHWARTZ, NEW SPECIES

Figures 1, 2, 3A–E

Types.—Holotype: male; data: NEPAL. [HELUMBU DISTRICT: Helumbu Trail], 27°58' N, 85°00' E, 3383 m (11,100 ft), 18 Jun 1967, Can. Nepal Exped., CNC Type No. 20746; deposited: Canadian National Collection of Insects, Biosystematics Research Centre, Ottawa, Ontario. Paratypes: 4 males, same data as holotype, but: 24 June, 1 male; 25 Jun, 2 males; 27 Jun, 1 male; deposited in the Canadian National Collection of Insects.

Description.—*Adult male:* Stramineous with faint red markings on head; faint patches or obscure fascia on hemelytra fuscous. *Measurements:* Length from apex of tylus to apex of membrane 9.70–9.85 mm; length from apex of tylus to cuneal fracture 6.10–6.35 mm. Length of hemelytra to cuneal fracture 4.40–4.50 mm; cuneus length 1.90–1.95 mm. Maximum width of pronotum 1.60–1.74 mm; median length of pronotum 0.83–0.93 mm. Head length 0.88–0.95 mm; width of head across eyes 0.98–1.06 mm; interocular width 0.35–0.38 mm; eye width 0.31–0.34 mm; eye height 0.50–0.53 mm. Length of labium 2.20–2.30 mm. Length of antennal segments: I, 1.10–1.33 mm; II, 3.00–3.30 mm; III, 3.10–3.40 mm; IV, 1.90–2.20 mm.

Diagnosis.—Adult males are distinguished from both sexes of *Lasiomiris albopilosus* (Lethierry), with which it was collected, by the faint blotchy markings on the clavus and corium; the nearly complete sulcus of the collar bordered posteriorly by a transverse carina; and the strongly convex pronotal disk.

Etymology.—Named in honor of my wife Elyse, who is a constant source of inspiration.

Remarks.—W. R. M. Mason (personal communication) recalls that the first base camp of the expedition was the type locality of *Nepalocoris elysae*. The site had a number of small grassy clearings, with a valley exposure partially bordered by Himalayan fir, birch, and rhododendron forest. The bugs were collected at a light attached to the side of a tent. Female mirids are less commonly collected at light which may explain why all the specimens were male.

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